

## **EFFECT OF EXTERNAL QI OF QIGONG IN THE GERMINATION OF MUNG BEAN SEEDS**

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### **ABSTRACT**

The effect of External Qi (EQ) emitted by a Qigong practitioner in the germination rate of mung bean seeds was studied. Two groups of 30 mung bean seeds were selected randomly and were placed each one in a container with 30 ml of tap water and were covered with a kitchen towel and placed in a dark room at room temperature. During 7 days EQ was emitted to the first group twice at day for 8 min, while the second group was taken as a control group (no effect of EQ). From the second day, the seeds were washed and were drained with new tap water daily. After the seventh day of germination, in both groups the length of the sprouting was measured. An average increasing of 6.8% in the length of the sprouting treated with EQ in comparison with the control group was observed. A basic statistical analysis of the data was performed.

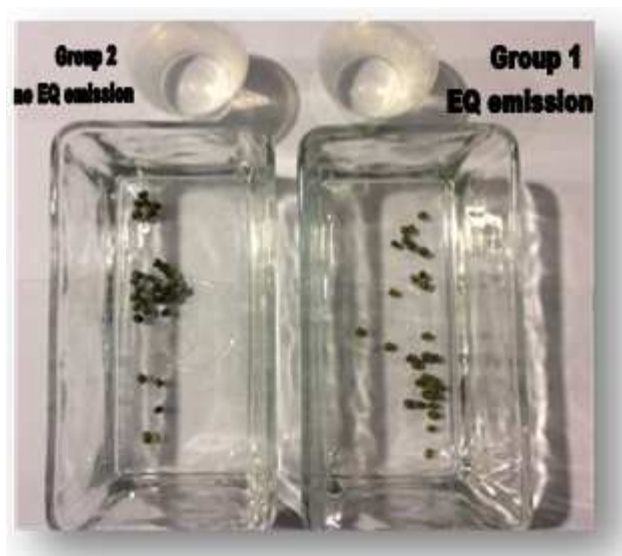
**KEYWORDS:** External Qi Emission, Mung Bean Seed Sprouting

### **INTRODUCTION**

Qi is the traditional term in Chinese culture being used to describe the elemental composition of the nature. It is the most basic and vital, formless and invisible source matter in the universe. Qi is called Prana in India. According to the Taoism theory everything is made of Qi. Hun Yuan Qi (integrated and combined Qi) is one of those Qi-associated terms. Qigong is the ancient and contemporary practice for the improvement and enhancement of physical health and therefore is closely related to Traditional Chinese Medicine. There are around three thousand types of Qigong in China. In the last almost four decades, many studies have been carried out to investigate the scientific basis of Chinese Qigong and emitted Qi, so as to document their excellent medical benefits. In particular, research studios of Zhineng Qigong (“Zhi” means wisdom and intelligence, and “neng” means ability), whose founder is Dr. Ming Pang, have been carried out in various fields such as agriculture, biology, education, fishery, medical treatment, physics, sport and so on. Most of this information has been generated in China and published in Chinese [1-6], but despite language difficulties, information published in English by Western scientists in collaboration with Chinese scientists can be found [7-11]. There are two types of Qi used in Qigong: internal and external. Internal Qi helps develop good health and self healing by means of individual practice of Qigong exercises. External Qigong refers to emission of Qi by a Qigong practitioner in order to affect someone or something other than himself. EQ can be gathered and directed towards a target by consciousness for a desired change. EQ emission has been tested for improving crop production by Zhineng Qi Gong practitioners in the last three decades in China. In this work, the effect of External Qi (EQ) emitted by a Qigong practitioner in the germination rate of mung bean seeds was studied.

## MATERIALS AND METHODS

Mung bean seeds were tested for sprouting. The mung bean (*Vignaradiata*), or alternatively called green gram, is a plant species in the legume family. Native to the Indian subcontinent, the mung bean is mainly cultivated today in India, China, and Southeast Asia. It is also cultivated in hot, dry regions in Southern Europe and the Southern United States. It is used as an ingredient in both savory and sweet dishes. Two groups of 30 mung bean seeds were selected randomly and were placed each one in a container with 30 ml of tap water and were covered with a kitchen towel and placed in a dark room at room temperature (see figure 1). During 7 days EQ was emitted to the first group twice a day for 8 min with the mind instruction “grow faster”, while the second group was taken as a control group (no effect of EQ). From the second day, the seeds were washed and were drained with new tap water daily. Afterwards, the length of each sprout was measured and a basic statistical analysis was carried out.



**Figure 1: Beginning of the Test of Mung Bean Seeds of Both Groups**

## RESULTS

Figure 2 shows the germination in the seventh day of both groups. It can be observed that in both groups the mung bean seeds sprouted in the same way apparently with not significant change in their lengths, but figure 3 shows a comparison of two sprouts of each group of mung bean seeds where it can be observed clearly a difference. The sprout treated with Qi emission shows a larger length.



Figure 2: Mung Bean Seeds of the Two Groups after 7 Days

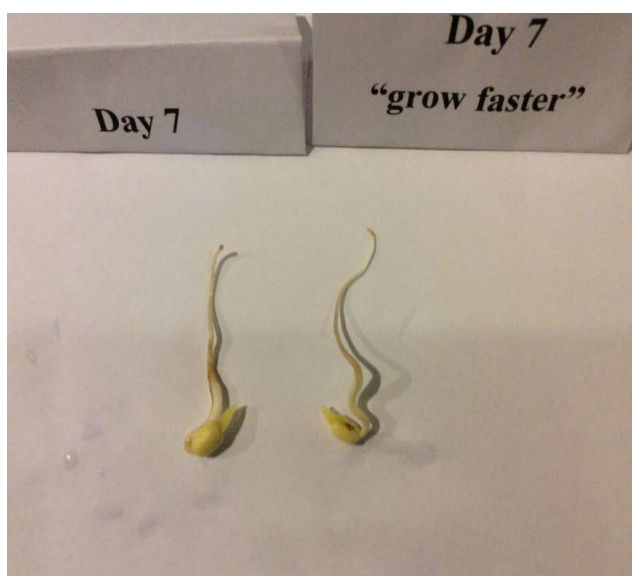


Figure 3: An Sprout of Each Group after 7 Days

After measure the length of each sprout in the two groups, measurements were ordered from highest to lowest value of the sprout length. Table 1 summarizes the length measurements of both groups.

From the table 1, the value of the maximum sprout length in group 1 was 4.7 cm, while the value in the control group was 4.3 cm, giving an increasing of 9.3%. The minimum value for both groups was 1.0 cm. The average sprout length for group 1 was 2.5 cm, in comparison with 2.34 cm of the group 2, giving an average increasing of 6.8 % for the mung beans seeds treated with EQ emission.

**Table 1: Length Measurements of the Two Groups of mung Bean Seeds**

| No. | Group 1            | Group 2            |
|-----|--------------------|--------------------|
|     | Qi Emission        | Control Group      |
|     | Sprout Length [cm] | Sprout Length [cm] |
| 1   | 4.7                | 4.3                |
| 2   | 3.9                | 3.8                |
| 3   | 3.5                | 3.2                |
| 4   | 3.5                | 3.2                |
| 5   | 3.4                | 3.1                |
| 6   | 3.2                | 2.9                |
| 7   | 3                  | 2.7                |
| 8   | 3                  | 2.6                |
| 9   | 3                  | 2.6                |
| 10  | 2.9                | 2.6                |
| 11  | 2.8                | 2.5                |
| 12  | 2.7                | 2.5                |
| 13  | 2.6                | 2.5                |
| 14  | 2.6                | 2.5                |
| 15  | 2.4                | 2.4                |
| 16  | 2.3                | 2.2                |
| 17  | 2.2                | 2.2                |
| 18  | 2.2                | 2.1                |
| 19  | 2.2                | 2.1                |
| 20  | 2.1                | 2.1                |
| 21  | 2.1                | 2                  |
| 22  | 2.1                | 1.9                |
| 23  | 2                  | 1.8                |
| 24  | 1.9                | 1.7                |
| 25  | 1.6                | 1.6                |
| 26  | 1.6                | 1.6                |
| 27  | 1.5                | 1.5                |
| 28  | 1.5                | 1.5                |
| 29  | 1.5                | 1.5                |
| 30  | 1                  | 1                  |

Since the mung bean seeds of both groups were treated in identical conditions, we follow an statistical analysis of the data to obtain a better precision in the value of the sprout length. The frequency table and histogram for the group 1 (EQ emission)) are shown in Table 2 and Figure 1, respectively. The frequency table and histogram for the group 2 (control group) are shown in Table 3 and Figure 2, respectively. Their values in terms of the standard deviation  $\sigma$  and the average error E were as follow: for group 1  $\sigma = 0.8$  cm and  $E = 0.15$  cm, and for group 2  $\sigma = 0.7$  cm and  $E = 0.13$  cm, respectively.

**Table 2: Frequency Table of the Data for Group 1**

| Frequency Table (Group 1) |                 |           |           |           |
|---------------------------|-----------------|-----------|-----------|-----------|
| Class Interval(cm)        | Classmarks (cm) | Class     | Absolute  | Relative  |
|                           |                 | Frequency | Frequency | Frequency |
| 0.95 - 1.75               | 1.35            | 6         | 6         | 1/5       |
| 1.75 - 2.55               | 2.15            | 10        | 16        | 1/3       |
| 2.55 - 3.35               | 2.95            | 9         | 25        | 3/10      |
| 3.35 - 4.15               | 3.75            | 4         | 29        | 2/15      |
| 4.15 - 4.95               | 4.55            | 1         | 30        | 1/30      |

Table 3: Frequency Table for Group 2 (EQ Emission)

| Frequency Table (Group 2) |                 |           |           |           |
|---------------------------|-----------------|-----------|-----------|-----------|
| Class Interval (cm)       | Classmarks (cm) | Class     | Absolute  | Relative  |
|                           |                 | Frequency | Frequency | Frequency |
| 0.95-1.65                 | 1.3             | 6         | 6         | 1/5       |
| 1.65-2.35                 | 2.0             | 9         | 15        | 3/10      |
| 2.35-3.05                 | 2.7             | 10        | 25        | 1/3       |
| 3.05-3.75                 | 3.4             | 3         | 28        | 1/10      |
| 3.75-4.45                 | 4.1             | 2         | 30        | 1/15      |

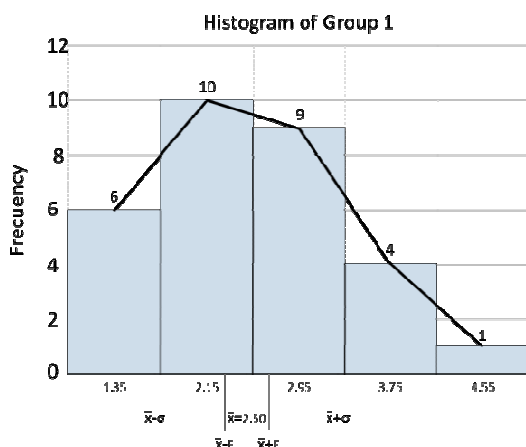


Figure 1: Histogram for Group 1 (Frequency vs. Classmarks)

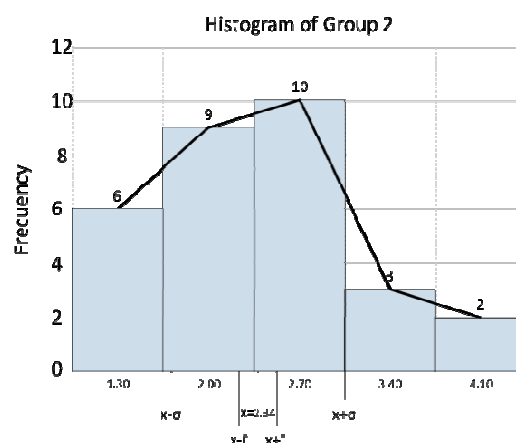


Figure 2: Histogram for Group 2 (Frequency vs. Classmarks)

As we see above, the data of both groups can be represented with an statistical analysis in which we can find higher values of sprout lengths for the group 1 where the EQ was emitted.

In figure 3 the length of sprout for both groups versus counting lengths of sprouts is shown. Clearly we can observe an increase of the lengths of sprout for group 1, where EQ was emitted. It was obtained a similar value of lengths for around 16.6% of sprouts (see count from 25 to 30).

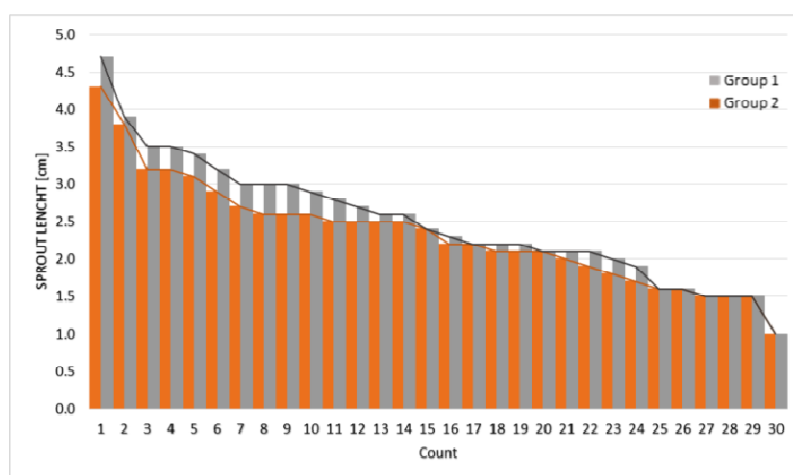


Figure 3: Length of Sprout for Both Groups vs. Counting Lengths

In the germination process what seeds need to grow is mostly water. They can stay a long time in a dark and dry place, like a very dry soil and wait for the moment for it to germinate. Water is what starts these dormant seeds to wake up.

Clearly, EQ emission represents an extra benefit in this process for improving the germination rate. One of the features of Zhineng Qigong is to focus on EQ not IQ for healing. One can improve mung bean seed germination by EQ emission to the seeds, as well as one can improve health by gathering and directing natural Hun Yuan Qi to himself. EQ emission effect is basically determined by the consciousness concentrating extent during action. A firm mind intention works best. A doubtful mind will not be able to gather much Qi to target thus effects would be very much reduced. In fact, it has been demonstrated that EQ emission is bi-directional. EQ emission can be used for inhibition of bean sprouting as well through the mind intention. Experiments of EQ emission with opposing intentions on proliferation of *Escherichia coli* have been successfully carried out [10]. In this experiment we could corroborate that the consciousness (mind) of human being is an objective entity, which can affect substances in nature through interacting with Hun Yuan Qi.

## CONCLUSIONS

External Qi can be gathered and directed to mung bean seeds to improve their germination rate by consciousness. After seven days of experimentation, an average increase in length of sprout of 6.8% for mung bean seeds treated with EQ emission in comparison with not treated mung bean seeds was obtained. The influence of the EQ emission in other kind of bean seeds can be carried out to confirm the positive improvement in the sprouting rate. The outlook for further research about the Qi energy in all branches of science is now open. In fact, it has been open since at least four decades. It is up to us to open way and verify the effectiveness of external Qi.

## ACKNOWLEDGEMENTS

Center of Zhineng Qigong in Hainan, China.

## REFERENCES

1. Z. X. Zhu, X. B. Wang, D. D. Li, S. F. Meng, Y. Z. Li (1993). Detection and analysis of infrasonic sound signals from qigong and extraordinary function: *Zhongguo Renti Kexue* (Chinese Journal of Somatic Science) **3**: 24-28. (in Chinese).
2. H. S. Gu, W. Zhao (1979). Observation of the electric particle flow in external qi: *Ziran Zazhi* (*Nature Journal*) **2**: 5-6. (in Chinese).
3. S. L. Zhang, H. Wu, M. Li (1996). The effect of Zhineng Qigong External Qi on the growth of human liver cancer cells (BEL 7402): *Zhineng Qi Gong Kexue* (*Zhineng Qi Gong Science*) **10**: 19-20. (in Chinese).
4. J. C. Shen, C. L. Sun (1998). The experiments and thinking on the directional effects of human consciousness on plant growth: *Zhongguo Renti Kexue* (*Chinese Journal of Somatic Science*), **8**(1): 51-60. (in Chinese).
5. Z. P. Lin (1991). Twelve year of Study on Qigong External Qi: *Chinese Sports*, May-Sept. (in Chinese).
6. F. Bai, C. L. Sun, Z. Y. Liu (2000): Seeds induced to germinate rapidly by mentally projected qi energy: *American Journal of Chinese Medicine* **28**(1): 3-8.
7. Z. Lin, K. Chen. Exploratory Studies of External Qi in China: *Journal of International Society of Life Information Science* (ISLIS) **20** (2): 457-461 (no year reported).
8. K. M. Sancier, B. Hu (1991). Medical applications of Qigong and emitted Qi on humans, animals, cell cultures, and plants: Review of selected scientific research: *American Journal of Acupuncture*, **19** (4): 367-377.

9. X. Yan, H. Lin, H. Li, A. Traynor-Kaplan, Z. Qia, F. Lu, Y. Fang, M. Dao (1999). Structure and property changes in certain materials influenced by the external qi of qigong: *Mat. Res. Innovat.* **2**:349-359.
10. L. Shao, J. Zhang, L. Chen, X. Zhang, K. W. Chen (2009). Effects of external Qi of Qigong with opposing intentions on Proliferation of *Escherichia coli*: *The journal of alternative and complementary medicine*, **15**(5): 567-571.
11. D. J. Muehsam, M. S. Markov, P. A. Muehsam, A. A. Pilla, R. Shen, Y. Wu (1994). Effects of Qigong on cell-free myosin phosphorylation: Preliminary experiments: *Subtle Energies* **5** (1): 93-108.

